Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARK A. HEATH and JOHN G. LINGO

Appeal No. 1998-2500
Application No. 08/276,154

ON BRIEF

Before JERRY SMITH, BARRETT, and DIXON, **Administrative Patent Judges**.

DIXON, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-20, which are all of the claims pending in this application.

We AFFIRM-IN-PART.

BACKGROUND

The appellants' invention relates to a system for reducing controller delays during sequential data transfers in a disc drive. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A method of controlling movement of a head over tracks on a disc in a disc drive having a formatter for accomplishing data transfers to and from the disc and a servo positioner for positioning the head over the disc, the method comprising:

determining a first track destination indicating a first track over which the head is to be positioned to start a data transfer;

positioning the head over the first track with the servo positioner based on the first track destination;

during the step of positioning, providing the formatter with a begin transfer signal;

beginning the data transfer when the head is positioned over the first track and in response to the begin transfer signal;

providing the servo positioner with a next track destination during the data transfer to the first track, the next track destination indicating a next track over which the data transfer is to take place; and

beginning positioning of the head over the next track with the servo positioner, based on the next track destination, once the head has reached an end of the first track.

The prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Anderson et al. (Anderson) EP-0 540 114 A1 May 5, 1993

Claims 17-20 stand rejected under 35 U.S.C. § 112, first paragraph, because the claims are not supported by the specification as originally filed and, as claimed, the disclosed structure cannot perform the function claimed. (See answer at page 4.) Claims 17-20 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-7 stand rejected under 35 U.S.C. § 102 as being unpatentable over EP-0 540 114 A1 (Anderson).

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 14, mailed Jan. 27, 1997) for the examiner's reasoning in support of the rejections, and to the appellants' brief (Paper No. 13, filed Nov. 5, 1996) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art reference, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

35 U.S.C. § 112, FIRST PARAGRAPH

The examiner, instead of relying on the "written description" or "enablement" language of the statute, has used the terminology "not supported" in the statement of the rejection. Our reviewing court has made it clear that written description and enablement are separate requirements under the first paragraph of 35 U.S.C. § 112. **Vas-Cath Inc. v. Mahurkar**, 935 F. 2d 1555, 1560, 19 USPQ 2d 1111, 1114 (Fed. Cir. 1991). The terminology "lack of support" has also been held to imply a reliance on the written description requirement of the statute. **In re Higbee and Jasper**, 527 F. 2d 1405, 1406, 188 USPQ 488, 489 (CCPA 1976).

In view of the factual situation presented to us in this instance, we will interpret the Examiner's basis for the 35 U.S.C. § 112, first paragraph, rejection as reliance on the "written description" portion of the statute. "The function of the description requirement [of

the first paragraph of 35 U.S.C. §112] is to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him." **In re Wertheim**, 541 F. 2d 257, 262, 191 USPQ 90, 96 (CCPA 1976). "It is not necessary that the application describe the claim limitations exactly, . . . but only so clearly that persons of ordinary skill in the art will recognize from the disclosure that appellants invented processes including those limitations." **Wertheim**, 541 F.2d at 262, 191 USPQ at 96; see generally **In re Smythe and Shamos**, 480 F.2d 1376, 1382, 178 USPQ 279, 284 (CCPA 1973). We may view the examiner's rejection as based upon a lack of written description since the examiner states that "the added material which is not supported by the original disclosure is as follows."

Appellants argue that the rejection under 35 U.S.C. § 112, first paragraph, is in error because the specification as originally filed is replete with support for the claimed features. (See brief at page 15.) We agree with appellants. The examiner maintains that the amendment filed Jan. 23, 1996, introduced new matter into the specification, which we interpret to mean a lack of written description for the claim language. Specifically, the examiner questions the claim language

> the track changer providing communication channel, other than the controller, between the formatter and the servo positioner <u>such that data transfer can begin upon the servo positioner completing positioning the head, in response to the signal from the track changer and without subsequent instructions from the controller, and such that servo positioning can begin after the formatter completes data transfer, in response to a signal</u>

from the track changer and without subsequent instructions from the controller.
(Emphasis added for the added material.)

Claim 17, as originally filed, contained the limitation that "a servo positioner for positioning the head based on a destination signal indicating the destination of a current track." Appellants argue that original claims 18-20 and the supporting disclosure at pages 10-15 of the specification support the language of amended claim 17. (See brief at page 16 and discussion of the supporting disclosure at pages 16-18 of the brief.) We agree with appellants that the originally filed claims 18-20 contain more specific limitations than the language of amended claim 17 and the supporting material at pages 10-15 supports the language of amended claim 17. Therefore, there was support in the original specification and the originally filed claims 18-20 for claim 17 as amended. Since the examiner has only questioned the inclusion of new matter in the amendment to claim 17, and we find that the material claimed was supported in the original disclosure and claims, there cannot be a question of written description. Here, we agree with appellants that the specification, as originally filed, would have conveyed to persons of ordinary skill in the art, to which the invention was directed, that appellants invented processes including those limitations recited in claim 17, as amended. Therefore, we cannot sustain the examiner's rejection based upon a lack of written description.

The examiner states that "as claimed, the disclosed structure cannot perform the function claimed." (See answer at page 4.) The examiner's basis for questioning the ability of the disclosed invention to carry out the claimed invention with respect to the new matter rejection is unclear. The examiner reads the claim limitations "on steps 64, 66, 68, and 74 of the initial track routine," but the examiner does not discuss how this is related to the alleged new matter. Therefore, this argument is too unclear to form the basis of a proper rejection under 35 U.S.C. § 112, first paragraph. Therefore, the examiner has not met his burden of setting forth a ***prima facie*** case, and we cannot sustain the rejection.

35 U.S.C. § 112, SECOND PARAGRAPH

The examiner maintains that the claim language "'can begin' does not define the structure defined in the specification" and when these operations "can" take place. (See answer at page 4.) The examiner further maintains that the structure of claim 17 provides no instructions to the formatter or servo controller, and it is unclear what is meant by "subsequent instructions." Appellants argue that in light of the specification, as discussed with respect to the issue of support of the amendment to claim 17, the claim language is clear and distinct such that data transfers can begin anytime after the appropriate signals are received from the track change logic. (See brief at pages 19 and 20.) We agree with appellants that the language of claims 17-20 is sufficiently clear to particularly point out and distinctly claim the subject matter which appellants regard as the invention. Therefore, we cannot sustain the rejection of claims 17-20 under 35 U.S.C. § 112, second paragraph.

35 U.S.C. § 102

Appellants argue that the "present invention provides a circuit, separate from the microcontroller, which interfaces between the formatter and the servo circuitry so that: 1. the data transfer step can begin automatically, and substantially immediately, after a servo step has ended; and 2. a servo step can begin automatically, and substantially immediately, after the data transfer." (See brief at page 12.) While this is true of the disclosed invention, appellants have not correlated these benefits to the language of claim 1. Therefore, this argument is not persuasive.

With respect to claim 1, the examiner maintains that Anderson teaches the invention as recited in claim 1. (See answer at page 5.) We agree with the examiner. Appellants argue that "the present invention deals with latency without encountering any of the problems associated with the prior art. The present invention does not start the servo step until the data transfer is complete. Further, the present invention does not start data transfer at a new track until the servo step is complete. Therefore, the present system is not attempting to read or write while it is being moved off of the track center."

(See brief at page 13.) Appellants argue that this is supported by "independent claim 1 where it states that 'the beginning of the step in which the head is positioned over the next track is not started until the head has reached an end of the first track.' Therefore, this indicates that the physical servo step positioning step is not performed during the data

transfer step." (See brief at page 13.) But, this specific language is not found in claim 1. The language of claim 1 states that "beginning the data transfer when the head is positioned over the first track and in response to the begin transfer signal" and "beginning positioning of the head over the next track with the servo positioner, based on the next track destination, once the head has reached an end of the first track." **Id.** Therefore, it is unclear what language in claim 1 appellants rely upon for support. Therefore, we find this argument unpersuasive.

Appellants argue that "providing the servo positioner with a next track destination during the data transfer to the first track, the next track destination indicating a next track over which the data transfer is to take place" clearly indicates that a determination of the next track is performed during data transfer on the previous track. **Id.** at 13-14. Anderson states that "[p]rocess steps 56, 58, and 60 anticipate the end time of the present read/write operation and start the head selection process and actuator energization process at a time such that the read/write will complete just prior to movement of head

away from the present track." (See Anderson at col. 7.) With respect to the overlap of processing, Anderson teaches in Figure 4 that phases 1, 2 and events 3a, 3b, and 3c may be overlapped with other functions to reduce the track switching latency. Anderson teaches the use of timeout functions 70 and 74 allow a preset amount of time for the phases and events to have occurred. With the overlap processing shown in figure 4 and the discussion of figures

8a and 8b at column 8, it is clear that Anderson performs calculations while the read/write is being performed and the servo controller receives the track switch command from the file controller. Therefore, Anderson teaches the claimed limitation and the argument thereto is not persuasive.

Appellants argue that the language of claim 1 deals with latency and substantially eliminates or reduces problems associated both with the system set out in the Anderson and the prior art system in Figure 2 of the specification. (See brief at pages 13-14.) This argument does not address the language of claim 1 with respect to Anderson under 35 U.S.C. § 102. Therefore, this argument is not persuasive. Since we find that the examiner has set forth a ***prima facie*** case of anticipation which has not been rebutted by appellants, we will sustain the rejection of claim 1. Since appellants have not separately argued claims 2-5, we similarly sustain the rejection of dependent claims 2-5.

With respect to claim 6, the examiner relies upon Anderson to address "the end of the seek," but the examiner does not address the language of the specific apparatus which must be taught by Anderson for the claim to be anticipated. (See answer at page 6.) While the examiner correlates signals to the start transfer signal and the qualified sector signal, the examiner has not shown in the Anderson reference the presence of a track change circuit coupled to the servo positioner, the microcontroller, the sector indicating circuit and the

formatter to provide a qualified sector signal as required by the language of claim 6. (See answer at page 6.) Appellants argue that data transfer on the next track does not begin until the physical servo operation is complete and is not executed during the servo operation. (See brief at page 14.) We agree with appellants. Further, appellants argue that claim 6 requires "the microcontroller providing a start data transfer signal to the formatter while the servo positioner positions the head over the desired track, the formatter beginning the data transfer in response to receiving the qualified sector signal from the track change circuit and after receiving the start transfer signal from the microcontroller." Appellants further argue that during the previous servo step of positioning of the head, the microcontroller is already determining whether additional data is to be transferred and is providing the start data transfer signal to the formatter. (See brief at page 14.) We agree with appellants. From our review of Figure 4 of Anderson concerning the timing of all the processing and switching, it is clear that Anderson discloses overlap of various steps in the conventional process. Furthermore, the examiner maintains that Anderson teaches the "relevant structure," but the examiner

has not identified the "relevant structure" in Anderson beyond citing to column 9, lines 14-16. (See answer at page 7.) We do not agree with the examiner's conclusion. The examiner equated the "sector ID on the new track" to receiving the qualified sector signal from the track change circuit as required by claim 6. We disagree with the examiner. The sector ID is read from the medium not from a track change circuit. From our understanding of Anderson,

Anderson does not clearly identify that this signal comes from a circuit which may be deemed "a track change circuit" separate from the microcontroller.

With respect to the operation of the circuit to perform overlap of phase 2 and events 3a, 3b, and 3c, Anderson discloses the use of timeout functions. (See Anderson at column 8, line 45 - column 9, line 45.) Anderson uses timeout functions in decision blocks 70 and 74 as an alternative to the new head reading the sector ID to prevent premature activation. (See Anderson at col. 9, lines 6-10.) In these embodiments, it is clear that Anderson does not teach the use of a track change circuit. Since Anderson does not teach all of the limitations recited in claim 6, we cannot sustain the rejection of claim 6 and its dependent claim 7.

CONCLUSION

To summarize, the decision of the examiner to reject claims 17-20 under 35 U.S.C. § 112, first paragraph is reversed; the decision of the examiner to reject claims 17-20 under 35 U.S.C. § 112, second paragraph is reversed; the decision of the examiner to reject claims 1-5 under 35 U.S.C. § 102 is affirmed and the decision of the examiner to reject claims 6 and 7 under 35 U.S.C. § 102 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

JERRY SMITH Administrative Patent Judge	)))))) BOARD OF PATENT
LEE E. BARRETT Administrative Patent Judge	) APPEALS) AND) INTERFERENCES
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jd/rwk

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